

Weir Minerals Europe

Excellent
Minerals
Solutions



Product Catalogue

Slurry and dewatering equipment solutions for mining & mineral processing, the power sector and general industry.

WARMAN®
Centrifugal Slurry Pumps

GEHO®
PD Slurry Pumps

LINATEX®
Rubber Products

VULCO®
Wear Resistant Linings

CAVEX®
Hydrocyclones

**FLOWAY®
PUMPS**
Vertical Turbine Pumps

ISOGATE®
Slurry Valves

MULTIFLO®
Mine Dewatering Solutions

HAZLETON®
Specialty Slurry Pumps

**LEWIS®
PUMPS**
Vertical Chemical Pumps

**WEIR
MINERALS
SERVICES™**

Focusing on what we do best, to deliver on what matters to you most.

Weir Minerals are specialists in delivering and supporting slurry and mine dewatering equipment solutions including pumps, hydrocyclones, valves, screen machines and screen media, rubber and wear resistant linings for global mining and mineral processing, the power sector, and general industry.

Focusing upon what we do best, Weir Minerals delivers on what matters to you most. This simple philosophy combined with being part of the global Weir Group provides you with added benefits over alternative suppliers.

Weir Minerals brings together an extensive global service and manufacturing presence combined with an investment capability able to develop, support and sustain market leading technologies that deliver enhanced performance in your process critical applications.

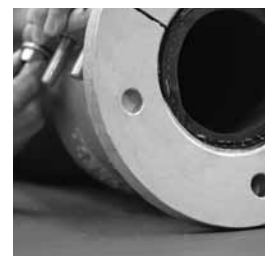
Through a customer focused strategy Weir Minerals has used its unique technologies to develop an unrivalled range of mine dewatering, process water and specialist slurry processing equipment for some of your most critical processes. This means that today's Weir Minerals is much more than a pump company.

"We view our products in the same way as you. We see them not in isolation but as part of a chain. In doing this we recognise that your processing plant is only as strong as its weakest link. This philosophy ensures our development time and effort is focused to deliver the maximum performance where it counts most to you".*

Tony Locke

Managing Director
Weir Minerals Europe

Some of our products and services are only available through our approved network of distributors.



Horizontal slurry pump models offering diverse designs for the toughest duties ...



WARMAN[®] MC PUMP

The WARMAN MC pump is a proven performer in the most severe slurry applications and is specifically designed for ball mill, SAG mill cyclone feed and water flush crushing in mineral processing plants. The MC range is also suitable for use as slurry transfer pumps on gravel dredging or coarse coal cyclone feed. MC pump hydraulics is based on more than 25 years of fundamental and applied research backed up by wear performance field trials. WARMAN MC designs incorporate the latest in hard alloy and elastomer technology, extending wear life in highly abrasive and corrosive slurries.



WARMAN[®] WBH PUMP

The WARMAN WBH is an innovative centrifugal slurry pump with proven performance and wear advantages which will re-write the Total Ownership Cost Equation for many end-users. Offering less power usage, reduced maintenance, longer wear life and higher performance the WBH is an investment for your business. Through advanced computational fluid dynamics design and advanced features Weir Minerals has created the ultimate slurry pump.



WARMAN[®] WGR PUMP

The WARMAN WGR rubber lined slurry pump has been designed to offer a wide choice of sizes to suit most abrasive solids handling slurry-type applications. Offering excellent wear life and reliability coupled with the lowest cost of ownership the WGR offers high efficiencies and compact design. Built for medium duty applications in the aggregate industry this range of pumps allows for maximum customisation to each process challenge.



WARMAN[®] L PUMP

The WARMAN L pump is a rugged heavy duty slurry pump for medium to lower heads. Incorporating the same design points of the WARMAN AH the L series offers the benefit of higher efficiency impellers at an attractive initial cost. Designed for rugged duties while offering higher efficiencies, the Warman L series is a combination of the proven WARMAN AH unique features. The WARMAN L series provides the widest range of hydraulics from the 3/4 to a 26 discharge pumps. The 3/4 is perfect for the laboratory or in demonstration plants.



WARMAN[®] GSL PUMP

The WARMAN GSL medium duty slurry pump is specifically designed for gas scrubber duties. Capable of handling abrasive and corrosive conditions found in FGD applications, the GSL design fully utilises our long experience in solids pumping and FGD and offers a design built to last. Specially designed high chromium irons combined with optimum impeller vane designs minimise wear in the GSL range of pumps.



WARMAN® MU PUMP

The WARMAN MU all metal unlined pump range offers outstanding efficiency over a wide range of medium slurry applications including coal, sand and gravel. Integrating newly designed wet end wear components with the proven WARMAN mechanical end, the casing, impeller and back liner have been fully optimised to provide the lowest possible wear. Containing many unique features the WARMAN MU is easy to maintain.



WARMAN® PC, PCH PUMP

The WARMAN PC is a medium duty process chemical pump ideal for light slurry duties and is ideal for 'dirty water' applications requiring greater reliability and durability than a conventional process pump can offer. When the ultimate in reliability is required the WARMAN PC pump deals effectively with low concentrations of abrasive solids, eliminating high wear and costly downtime normally experienced.



WARMAN® D, G SHG PUMP

The WARMAN SHG heavy duty hard iron pumps are designed to suit the most arduous dredging and gravel applications. Providing continuous pumping of highly abrasive slurries containing large particles at high maintained efficiencies the WARMAN SHG range offers low maintenance and ownership costs. Utilising the latest hydraulic technology this provides increased flow and head without compromising wear life.

The Gemex system makes it possible to change belts on any critical machine in just a few minutes.



GEMEX® Belt Transmission

The Gemex system makes it possible to change belts on any critical machine in just a few minutes. Alignment is only done at the first installation. Correct alignment and belt tension gives a longer and more predictable life time for belts, pulleys and bearings. Fast and easy service gives less downtime and availability for production. Optimized running conditions gives secured efficiency.

Electrosubmersible and cantilever shaft pump models offer solutions for open sumps and pits ...



WARMAN® SHW PUMP

The WARMAN SHW pump is a heavy duty submersible slurry pump built for arduous sump and pit applications. Making extensive use of finite element stress analysis and state-of-the-art solids modelling, the WARMAN SHW pump provides dependable solids handling capability at the lowest possible cost. A heavy duty all chrome wet end coupled with a motor designed and built in-house the WARMAN SHW pump deals with the most demanding applications with ease.



WARMAN® SJ PUMP

The WARMAN SJ submersible dewatering pumps represent an optimal combination of ruggedness, durability, hydraulics and materials technology. Designed to perform in the most arduous submersible mine and quarrying dewatering applications the WARMAN SJ pump is equipped for immediate use. Featuring a low weight pump design the WARMAN SJ range is easy to install making operation easy and safe.

Vertical pumps designed to deliver maximum efficiency ...



WARMAN® SP/SPR PUMP

The WARMAN SP/SPR pump is a heavy duty cantilever shaft slurry pump. Ideal for pit and sump duties the pump is designed for applications requiring greater reliability and durability in comparison to what conventional vertical pumps can offer. The heavy duty cantilever design makes the WARMAN SP/SPR sump pump ideally suited for heavy continuous handling of abrasive and corrosive liquids and slurries whilst submerged in sumps or pits.



FLOWAY® TURBINE PUMPS

FLOWAY vertical turbine mining pumps offer a close coupled or multistage turbine and include a choice of corrosion and wear resistant materials that ensure that Floway Turbine Pumps are the most versatile, reliable and long lasting pumps of their type. Featuring low NPSHR first stage impellers and multi-vane bowl diffusers allow shorter pump and barrels, reducing rotor loading and offering exceptional sleeve bearing life and hydraulic stability. A precision manufactured low vibration quality program significantly reduces vibration and increases pump life span consequently reducing downtime, repairs and costs.

Washing and processing plant and highly efficient dewatering and sizing screens ...



LINATEX® WASHING & PROCESSING PLANT

LINATEX Engineered Solutions combine the extensive range of Weir Minerals process equipment (including pumps, hydrocyclones, screens, valves and classifiers) in a single plant design. Working with a clients' design team or engineering house, Weir Minerals can design, supply and install high quality minerals processing technology and engineered systems. Built on green field sites the plants can also be retrofitted to existing systems to improve outputs and safety.



LINATEX® SIZING AND DEWATERING SCREENS

The LINATEX range of linear motion vibrating screens offers extremely robust design and construction. With the benefits of high efficiency, high capacity, low headroom and reduced operating and maintenance cost, these screens are ideally suited for heavy duty application in the sand processing and minerals processing industries. Weir Minerals has in-house design capability to suit our customers' needs.

Unique hydrocyclones increasing hydraulic capacity and minimising local wear ...



CAVEX® CVX

CAVEX CVX spiral hydrocyclones feature a unique laminar inlet geometry designed to deliver maximum efficiency, maximum capacity and longer wear life than conventional involute or tangential feed hydrocyclone designs. The CAVEX hydrocyclone is not just a cone modification but has an entirely unique feed geometry that substantially increases hydraulic capacity whilst minimising localised wear on the feed chamber and vortex finder. The CAVEX hydrocyclone design improvements offer lower operating costs, improve classification efficiency and reduce the number of hydrocyclones for a given duty.



CAVEX® DW

CAVEX DW dewatering cyclones are specifically applied in dewatering and desliming mineral, concrete, and iron sands, iron ore fines, phosphate rock and coal washery in minerals processing circuits, including back-fill feed preparation. Incorporating an extended overflow pipe which induces a siphon effect and, in turn, creates a vacuum. This vacuum is adjustable and automatically controls the discharge regulator, holding back the majority of the silts, clays and water but regulating the discharge of the classified solids at a constant concentration.



CAVEX® RECYCLONE

The CAVEX ReCyclone performs double classification in one stage which improves overall classification efficiency. Increasing the sharpness of separation, it significantly reduces the bypass of fines to the underflow by the influence of the new design. Oriented specifically to influence the flow of the viscous layer of fluid close to the hydrocyclone walls, this is achieved by mechanically disrupting the viscous layer and altering its viscosity by water injection. This creates a 'curtain' through which the classified solids must penetrate, consequently reducing misplaced undersize material which would otherwise report to the underflow.

High pressure grinding rollers for hard rock mining applications ...

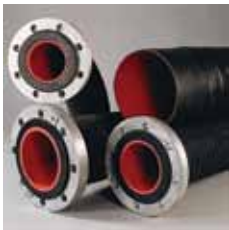


HPGR[®] GRINDING ROLLERS

HPGR high pressure grinding rollers have been successfully installed within mineral processing plants largely in the iron and diamond treatment industries. Within these industries the application of HPGR ranges from coarse grinding of 65mm size course pebbles in AG circulation loops to final grinding of <100µm material to high Blaine values in the preparation of pellet feed.

Weir Minerals is the exclusive KHD HPGR agent for Minerals Solutions.

Premium rubber products including hoses, bends, sheet rubber and rubber lining services ...



LINATEX[®] HOSES

LINATEX heavy duty abrasion resistant hose is custom built and designed to deliver outstanding wear performance in the most arduous of mining, aggregate and industrial applications. Complimenting the hose range the LINATEX world renowned wear resistant rubber compounds offer the lowest cost of ownership. Through manufacturing and design versatility the proven performance of LINATEX Premium Rubber has made it first choice in the world's leading mine site with a solid reputation for reliability.



LINATEX[®] BENDS

LINATEX pre formed radii rubber bends are intended for use where space limitations demand a much sharper bend radius than can be achieved using LINATEX hard wall hose. Designed to offer superior wear performance over normal hose and steel lined pipe LINATEX Bends are available in an extensive range of diameters, bend angles and radii configurations.



LINATEX[®] RUBBER LINING

LINATEX Premium Rubber is a 95% natural rubber that exhibits outstanding resilience, strength and resistance to cutting, tearing and abrasion. With more than 80 years' experience in handling aggressive materials, LINATEX is still ranked as the premium wear resistant rubber for sliding or wet abrasion service. A unique and patented manufacturing process gives it extraordinary physical properties and outstanding performance. LINATEX Rubber can be supplied to many surfaces to reduce wear and corrosion to the base structure; including chutes, pipe linings, flexible bends, anti - build up and vessel linings.



LINATEX[®] RUBBER SHEET

LINATEX Premium Rubber Sheet has proven 'Best in Field' performance in fine slurry abrasion and offers excellent resistance to cutting and tearing through high resilience and low modulus. Offering a resistance to a wide range of chemicals the uses of LINATEX Premium Rubber Sheet are almost unlimited and include pipe, chute and tank linings, hydrocyclones, pumps, hoses, valve liners and belting. Through a unique and patented manufacturing process minimal mechanical disturbance is caused to the molecular structure of the finished rubber, resulting in significant cost benefits to the user. With LINATEX there is no equivalent when it comes to wet abrasion.



LINATEX® RUBBER ALTERNATIVE APPLICATIONS

LINATEX purposed designed linings have been successfully applied in animal recovery rooms in veterinary practices and hospitals throughout the world. The rooms are designed and built to give maximum safety for animals during pre- and post- operative procedures. Shooting ranges throughout the world have selected LINATEX as a permanent fixture to safeguard shooters against dangerous ricochets in shooting ranges. It is the outstanding resilience, strength and resistance to both cutting and tearing that permit LINATEX to self seal after the projectile has passed through and also deaden noise from shots and strikes against the rear armour plating.



LINATEX® IMPACT BARS

LINATEX impact bars are made from unique abrasion and impact resistant 60 shore natural rubber. Offering an extended life LINATEX impact bars have a protective top surface providing low friction, preventing damage and reducing wear. Angled leading edges prevent bolt and belt damage. Available in 6 or 12mm thickness the impact bars are easily installed using M16 bolts; the metal channel running the length of each impact bar enables easy fixing and removal. Impact cradles offer a strong platform for installing Impact Bars. Allowing quick installation each cradle is fully adjustable to increase or decrease the belt trough.



LINATEX® IMPACT PANELS

LINATEX impact panels are easy to fit and provide a quick and cost effective solution in areas of high wear, impact and abrasion. Made from high abrasion, cut and tear resistant Linard 60, or Linard HDS compounds, these high quality natural rubbers are suitable for use in either wet slurry or dry, hard rock environments, providing excellent wear and abrasion resistance. Compression moulded, with two T section strips which provide support for fixing they are light in weight and easy to handle and fit.



LINATEX® MAP PANELS

LINATEX modular anti-abrasion panels are a high performance impact and abrasion resistant panel for use in all medium to high wear applications. Easy to fit and replace, the MAP panel utilises a rigid construction without the use of steel backing or reinforcement. With only one fixing point required per panel the interlocking design and secure fastening mechanism ensures superior abrasion and impact resistance reducing the chance of fine material ingress between panels. Panels are compression moulded and available in thicknesses of 30, 40 and 50mm according to the application and operating conditions.

Linatex rubber products are available through approved distributors in certain countries. For further details contact your local agent.

Valves designed for today's slurry applications with ease of maintenance in mind ...



ISO GATE® WS, WB & WH

ISO GATE heavy duty slurry knife gate valves are a uniquely designed valve offering both ease of maintenance and cost effectiveness. Clear liquid valves are often miss-applied on slurry duties, resulting in rapid wear of the valve seat, sticking valves and leakage to the atmosphere. Utilising proven abrasion and corrosion resistant materials the ISO GATE heavy duty slurry valve combines a low maintenance design suitable for a wide range of applications.



ISO GATE[®] PVOB & PVCB VALVES

The Open Body ISO GATE Pinch Valve (PV OB) combines a weight saving fabricated steel body design, to allow for easy access and replacement of the rubber sleeve, and a clear and simple visual indication of the valve position.

The Closed Body ISO GATE Pinch Valve (PV CB) features a cast metal body enclosing and protecting both the sleeve and the mechanical pinching mechanism against aggressive environments and/or splashes of slurry media.



ISO GATE[®] PPV1PS & PPV2PL

ISO GATE pneumatic pinch valves are ideal for remote operation without the need for any auxiliary cylinder operators. Available in either 1 piece sleeve (PPV 1PS) or 2 piece liners (PPV 2PL) the rubber pinch sleeve (or liners) are enclosed in a robust cast metal body with the pinching operation being performed by injecting a pneumatic or hydraulic pressure into the body cavity, between the body itself and the external surface of the sleeve, thus forcing the rubber sleeve to collapse towards its closed position as the feeding fluid control pressure rises.



ISO GATE[®] CVSNR

ISO GATE CVSNR slurry check valves are rubber lined and used for the prevention of reverse flow in abrasive and corrosive flow processes. Fully lined with natural rubber (premium LINATEX or LINARD) or synthetic rubber they have no internal metal parts exposed to the process flow. The ISO GATE CVSNR is a single port full bore swing check valve designed to provide high flow capacity with low friction loss and features moulded drop-in rubber liners and discs that can be easily replaced.



ISO GATE[®] AB

Isogate AB slurry check valves provide a simple automatic change over system without the costly process control systems generally needed. A simple, fully serviceable 3-way check valve for the most arduous slurry duties features a low density ball inside the valve which is transferred to block the inactive inlet once a pump has started. With a possible option of running both pumps simultaneously if the system requires it the Isogate AB improves maintenance times and reduces costs.

Mine dewatering systems offering the total solution for open pit and underground mine dewatering duties...



MULTIFLO[®] MF

The MULTIFLO MF heavy duty self-prime dewatering pump is designed to withstand the harsh arduous operating conditions found on mining sites with the heavy duty robust construction ensuring long life and optimum performance. Featuring an auto vacuum system which eliminates priming problems, optimum mobility is assured with several types of mounting options including heavy duty skid bases, steel pontoons or mining trailers. Other customised options include monitoring and instrumentation and an auto start/stop facility.



MULTIFLO® CF

The MULTIFLO range of medium duty self-prime dewatering pumpsets offer a cost effective pumping solution. Designed and built specifically to simplify both operation and maintenance the auto vacuum primed, diesel driven pump units are built for general purpose pumping applications.



MULTIFLO® ME

The MULTIFLO ME range of heavy duty range of self-priming, pontoon mounted electric driven pump unit's offer several configurations. Available in either single or multiple pump units, direct or belt drive they can be supplied with either an inclined or vertical pump mounting. Smaller units are manufactured with a single hull facilitating easy transportation for the small footprint. Larger units are designed as three piece pontoons simplifying the logistics of transportation with the two outer sections accommodating the flotation units with the centre housing the pumps. Positive self-priming is critical to the reliability of a pump and the MULTIFLO ME pump is always able to self-prime within minutes of starting.



MULTIFLO® ISOGLIDE PUMP

The MULTIFLO Isoglide single stage end suction pumps offer high efficiency and are capable of achieving maximum duty from minimum motor ratings. Featuring hydraulically balanced impellers these minimise thrust, extend bearing life and provide increased reliability. The Multiflo ISOGLIDE pump is equipped with a back pull- out facility which allows the rotating assembly to be removed without disturbing the pump alignment or pipework. Designed to ISO 2858 the pump is available in close and long coupled configurations. The range is interchangeable with other standard ranges.



MULTIFLO® UNIGLIDE PUMP

The MULTIFLO single stage horizontal split casing pump offers 180 frame sizes to perform all duties at optimum efficiency. Available in both horizontal and vertical arrangement the MULTIFLO Uniglide features a double volute on a larger frame which reduces the radial hydraulic thrusts.

The pump is equipped with a back pull-out facility which allows the rotating assembly to be removed without disturbing the pump alignment or pipework.



MULTIFLO® DUOGLIDE PUMP

The MULTIFLO Duoglide two stage horizontal split casing pump offers higher efficiencies than single stage pumps for the equivalent duty. Diffuser passages on this pump are designed to minimise radial hydraulic thrusts whilst back to back impellers minimise axial hydraulic thrusts. Featuring low gland sealing pressure the MULTIFLO Duoglide is also equipped with a back pull-out facility this allows the rotating assembly to be removed without disturbing the pump alignment or pipework. The range is available in both horizontal and vertical configurations.



MULTIFLO® SPIROGLIDE PUMP

The MULTIFLO Spiroglide multistage horizontal pump is engineered for a wide range of high lift duties. Featuring a robust through bolt construction, this pump offers optimum efficiency and reliability coupled with low maintenance costs.

Featuring a balanced disc arrangement which minimises axial hydraulic thrusts the pump has a unique diffuser design which facilitates handling small quantities of solid content in water and ensures minimum turbulence during transfer from stage to stage.

The MULTIFLO® Isoglide, Uniglide, Duoglide and Spiroglide pumps are manufactured and supplied by Weir Minerals Africa (Pty) Ltd under licence from Clyde-Union Limited.

Wear resistant linings to optimise grinding mill performance ...



VULCO® MILL LININGS

VULCO wear resistant linings are designed to optimise grinding mill performance while minimising the overall operating cost. Weir Minerals is committed to providing best possible design to each application, with service over the complete wear life of the liners and support to get the most out of your mill circuit. VULCO mill lining systems come in many forms and shapes from full rubber design to composite liner assemblies with either wear resistant steel or ceramic inserts applied to the rubber matrix to extend the wear life of the critical liner components.

Weir Minerals Service

The development of our global service and support network recognises that commitment does not end with the supply of equipment. In delivering on and off site services we are able to optimise the performance of your plant and reduce your total ownership costs. This is why today so many of the world's major operators not only specify our high performance equipment in their project briefs, but also rely on Weir Minerals Services to keep them in peak performance.

Our services range from on request service through to our Service Partnerships, offering an innovative approach to equipment servicing that ensures your plant achieves optimal 'health' and marks a step change from costly reactive to preventative plant maintenance.

The services we offer include:

- Tailored service agreements and partnerships
- Condition monitoring
- Service work on-site
- Equipment rebuilds in our workshops
- Service exchange pump units
- On-site rubber lining
- Customised product training
- Commissioning

Weir Minerals Service Centres and our fleet of mobile service units are committed to providing resources, knowledge and service to initiate long term measurable total ownership cost reduction.



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WEIR MINERALS SERVICES™



For further information on any of these products or our support services contact your nearest sales office or visit:

www.weirminerals.com

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Excellent
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